

Title (en)

SYSTEM AND METHOD FOR WASTE HEAT POWERED ACTIVE CLEARANCE CONTROL

Title (de)

SYSTEM UND VERFAHREN FÜR ABWÄRMEBETRIEBENE AKTIVE ABSTANDSSTEUERUNG

Title (fr)

SYSTÈME ET PROCÉDÉ DE COMMANDE DE JEU ACTIF ALIMENTÉ EN ÉNERGIE PAR LA CHALEUR PERDUE

Publication

EP 3091195 A1 20161109 (EN)

Application

EP 16168058 A 20160503

Priority

US 201514707927 A 20150508

Abstract (en)

A system 10 includes a turbine 32 configured to expand a gas flow. The turbine includes a turbine rotor, such that the heated gas flow rotates the turbine rotor about an axis and a turbine casing 58 is disposed around the turbine rotor. A cooling manifold 76 directs a low pressure cooling fluid toward the turbine casing such that the low pressure cooling fluid cools the turbine casing 58 and controls the clearance between the turbine rotor and the turbine casing. Corresponding method for controlling the clearance between the turbine rotor and the turbine casing.

IPC 8 full level

F01D 11/24 (2006.01); **F01K 23/10** (2006.01); **F02C 6/18** (2006.01)

CPC (source: CN EP KR US)

F01D 5/02 (2013.01 - US); **F01D 11/20** (2013.01 - KR); **F01D 11/24** (2013.01 - CN EP KR US); **F01D 25/12** (2013.01 - KR US); **F01D 25/24** (2013.01 - US); **F01D 25/26** (2013.01 - EP US); **F01K 23/10** (2013.01 - EP US); **F01K 23/101** (2013.01 - EP US); **F02C 6/18** (2013.01 - EP US); **F02C 7/12** (2013.01 - KR); **F05D 2220/32** (2013.01 - US); **F05D 2220/72** (2013.01 - EP US); **F05D 2240/24** (2013.01 - US); **F05D 2260/2322** (2013.01 - US); **Y02E 20/14** (2013.01 - EP US); **Y02E 20/16** (2013.01 - EP US)

Citation (search report)

- [X] US 4550562 A 19851105 - RICE IVAN G [US]
- [X] US 6502403 B1 20030107 - TAZAKI MASAMOTO [JP], et al
- [A] US 5431007 A 19950711 - VISCOVICH PAUL W [US], et al

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3091195 A1 20161109; BR 102016009338 A2 20161116; CN 106121741 A 20161116; JP 2016211558 A 20161215; JP 6745079 B2 20200826; KR 20160131911 A 20161116; US 2016326915 A1 20161110

DOCDB simple family (application)

EP 16168058 A 20160503; BR 102016009338 A 20160427; CN 201610295367 A 20160506; JP 2016090009 A 20160428; KR 20160053837 A 20160502; US 201514707927 A 20150508